

## Subject Index of Volume 94

*c*-Axis orientation

$\text{LiCoO}_2$ ; Electrochemical properties; Thin films; Pulsed laser deposition (Iriyama, Y. (94) 175)

AC impedance method

PEMFC; Pt/C electrode; PTFE; Nafion (Song, J.M. (94) 78)

Ac impedance spectroscopy

Lithium secondary batteries; Graphite anodes; Coke-coated graphites; Irreversible capacity loss (Yoon, S. (94) 68)

Al containing oxide

Manganese dioxide; Voltammetry; Structural characteristics; Power sources (Bodoardo, S. (94) 194)

Alternative fuels

Molten carbonate fuel cell; Ethanol steam reforming (Freni, S. (94) 14)

Analytical modeling

Two-phase transport; PEM fuel cells; Numerical simulation; Water management (Wang, Z.H. (94) 40)

Anode materials

$\text{CoFe}_3\text{Sb}_{12}$ ; Electrochemical behavior; Lithium-ion batteries (Zhang, L.J. (94) 92)

Anode materials

$\text{Zn}_4\text{Sb}_3$ ; Lithium-ion batteries (Cao, G.S. (94) 102)

Anode

Carbon alloy; BCN compounds; Intercalation; Li-ion battery (Huang, H. (94) 108)

Anode

Lithium-ion batteries; Lithium alloys; Bismuth; Tin (Crosnier, O. (94) 169)

Anode

Phosphorus; Carbon; Lithium-ion batteries (Xiang, H.-Q. (94) 85)

Balance of plant

Molten carbonate fuel cell; MCFC; System study; Benchmark; System assessment (Kivisaari, T. (94) 112)

BCN compounds

Carbon alloy; Intercalation; Li-ion battery; Anode (Huang, H. (94) 108)

Benchmark

Molten carbonate fuel cell; MCFC; System study; System assessment; Balance of plant (Kivisaari, T. (94) 112)

Bismuth

Lithium-ion batteries; Anode; Lithium alloys; Tin (Crosnier, O. (94) 169)

Cadmium electrode

Nickel–cadmium battery; Cyclic voltammetry; X-ray diffraction; Second discharge plateau (Simic, N. (94) 1)

Carbon alloy

BCN compounds; Intercalation; Li-ion battery; Anode (Huang, H. (94) 108)

Carbon anode

Lithium batteries; Gelatine pretreatment (Drofenik, J. (94) 97)

Carbon

Lithium secondary batteries; Negative electrode; Graphite; Coke; Mixture of graphite and coke (Kida, Y. (94) 74)

Carbon

Phosphorus; Anode; Lithium-ion batteries (Xiang, H.-Q. (94) 85)

Cation deficient spinels

Manganese mixed oxides; Rechargeable lithium batteries (Lavela, P. (94) 122)

Charge transfer

EIS spectra; Intercalation electrode; Conductivity (Nobili, F. (94) 238)

$\text{CoFe}_3\text{Sb}_{12}$

Anode materials; Electrochemical behavior; Lithium-ion batteries (Zhang, L.J. (94) 92)

Coke

Lithium secondary batteries; Negative electrode; Carbon; Graphite; Mixture of graphite and coke (Kida, Y. (94) 74)

Coke-coated graphites

Lithium secondary batteries; Graphite anodes; Irreversible capacity loss; Ac impedance spectroscopy (Yoon, S. (94) 68)

Composite electrolyte

Polymer electrolyte; Poly(ethylene oxide); Lithium battery; Electrode and electrolyte interface (Li, Q. (94) 201)

Concentration measurement

Lithium/polymer–electrolyte/lithium cells; Cycling (Brissot, C. (94) 212)

Conducting polymers

Lithium battery; Polyaniline; Trichloroacetic acid; Propylene carbonate (Venancio, E.C. (94) 36)

Conductive membrane

Solid electrolyte; Proton conduction; Silicotungstic acid; Polybenzimidazole (Staiti, P. (94) 9)

Conductivity

EIS spectra; Charge transfer; Intercalation electrode (Nobili, F. (94) 238)

Cyclic voltammetry

Nickel–cadmium battery; Cadmium electrode; X-ray diffraction; Second discharge plateau (Simic, N. (94) 1)

Cycling

Lithium/polymer–electrolyte/lithium cells; Concentration measurement (Brissot, C. (94) 212)

Dual intercalation

Solvent mixtures; Graphite lattice; Graphite exfoliation (Suryanarayanan, V. (94) 137)

Dynamic model

MCFC; MIMO; Transfer function; Step response (Kang, B.S. (94) 51)

EIS spectra

Charge transfer; Intercalation electrode; Conductivity (Nobili, F. (94) 238)

Electrochemical behavior

Anode materials;  $\text{CoFe}_3\text{Sb}_{12}$ ; Lithium-ion batteries (Zhang, L.J. (94) 92)

Electrochemical impedance

Sn/SnSb; Electrolyte; Surfactant additive; Film formation; Solid electrolyte interphase (Wachtler, M. (94) 189)

**Electrochemical properties**  
 LiCoO<sub>2</sub>; *c*-Axis orientation; Thin films; Pulsed laser deposition (Iriyama, Y. (94) 175)

**Electrode and electrolyte interface**  
 Polymer electrolyte; Poly(ethylene oxide); Composite electrolyte; Lithium battery (Li, Q. (94) 201)

**Electrolyte**  
 Sn/SnSb; Surfactant additive; Film formation; Solid electrolyte interphase; Electrochemical impedance (Wachtler, M. (94) 189)

**Energy storage devices**  
 Lithium-ion batteries; Low temperature electrolytes (Plichta, E.J. (94) 160)

**Epoxidised natural rubber**  
 Plasticiser; Poly(methyl methacrylate)-grafted natural rubber; Polymer electrolytes (Idris, R. (94) 206)

**Ethanol steam reforming**  
 Molten carbonate fuel cell; Alternative fuels (Freni, S. (94) 14)

**Film formation**  
 Sn/SnSb; Electrolyte; Surfactant additive; Solid electrolyte interphase; Electrochemical impedance (Wachtler, M. (94) 189)

**FTIR**  
 Lithium polymer battery; Passivating layer; Solid electrolyte interface (SEI); Raman (Ostrovskii, D. (94) 183)

**Gelatine pretreatment**  
 Lithium batteries; Carbon anode (Drofenik, J. (94) 97)

**Graphite anodes**  
 Lithium secondary batteries; Coke-coated graphites; Irreversible capacity loss; Ac impedance spectroscopy (Yoon, S. (94) 68)

**Graphite exfoliation**  
 Solvent mixtures; Graphite lattice; Dual intercalation (Suryanarayanan, V. (94) 137)

**Graphite lattice**  
 Solvent mixtures; Dual intercalation; Graphite exfoliation (Suryanarayanan, V. (94) 137)

**Graphite**  
 Lithium secondary batteries; Negative electrode; Carbon; Coke; Mixture of graphite and coke (Kida, Y. (94) 74)

**Graphite**  
 Lithium-ion battery; Thermal conductivity; Thermal diffusivity; Specific heat capacity (Maleki, H. (94) 26)

**Graphite**  
 Silicon; Lithium-ion battery; Si–O network; Sol–gel; Negative electrode (Ng, S.B. (94) 63)

**Hydrogen sulfide**  
 Solid oxide fuel cell; Platinum electrode; YSZ (Liu, M. (94) 20)

**Intercalation electrode**  
 EIS spectra; Charge transfer; Conductivity (Nobili, F. (94) 238)

**Intercalation**  
 Carbon alloy; BCN compounds; Li-ion battery; Anode (Huang, H. (94) 108)

**Interfacial resistance**  
 Ionomer; Polymer electrolyte; Ion aggregate; Ionic conductivity (Kim, C.-H. (94) 163)

**Interfacial stability**  
 Multi-layered polymer electrolyte; Lithium ion battery (Aldissi, M. (94) 219)

**Ion aggregate**  
 Ionomer; Polymer electrolyte; Ionic conductivity; Interfacial resistance (Kim, C.-H. (94) 163)

**Ionic conductivity**  
 Ionomer; Polymer electrolyte; Ion aggregate; Interfacial resistance (Kim, C.-H. (94) 163)

**Ionomer**  
 Polymer electrolyte; Ion aggregate; Ionic conductivity; Interfacial resistance (Kim, C.-H. (94) 163)

**Irreversible capacity loss**  
 Lithium secondary batteries; Graphite anodes; Coke-coated graphites; Ac impedance spectroscopy (Yoon, S. (94) 68)

**Jahn-Teller distortion**  
 Lithium secondary batteries; Sol–gel method; Lithium manganese oxide; Oxysulfide spinel (Sun, Y.-K. (94) 132)

**Li-ion battery**  
 Carbon alloy; BCN compounds; Intercalation; Anode (Huang, H. (94) 108)

**Li-ion cell**  
 X-ray diffraction; Li-ions intercalation; Spinel mixed oxides (Arrabito, M. (94) 225)

**Li-ions intercalation**  
 X-ray diffraction; Spinel mixed oxides; Li-ion cell (Arrabito, M. (94) 225)

**LiCoO<sub>2</sub>**  
*c*-Axis orientation; Electrochemical properties; Thin films; Pulsed laser deposition (Iriyama, Y. (94) 175)

**Lithiated graphite**  
 Lithium-7 NMR; Partially oxidized graphite (Wang, Y. (94) 230)

**Lithium alloys**  
 Lithium-ion batteries; Anode; Bismuth; Tin (Crosnier, O. (94) 169)

**Lithium batteries**  
 Carbon anode; Gelatine pretreatment (Drofenik, J. (94) 97)

**Lithium battery**  
 Conducting polymers; Polyaniline; Trichloroacetic acid; Propylene carbonate (Venancio, E.C. (94) 36)

**Lithium battery**  
 Polymer electrolyte; Poly(ethylene oxide); Composite electrolyte; Electrode and electrolyte interface (Li, Q. (94) 201)

**Lithium ion battery**  
 Multi-layered polymer electrolyte; Interfacial stability (Aldissi, M. (94) 219)

**Lithium manganese oxide**  
 Lithium secondary batteries; Sol–gel method; Oxysulfide spinel; Jahn–Teller distortion (Sun, Y.-K. (94) 132)

**Lithium polymer battery**  
 Passivating layer; Solid electrolyte interface (SEI); Raman; FTIR (Ostrovskii, D. (94) 183)

**Lithium secondary batteries**  
 Graphite anodes; Coke-coated graphites; Irreversible capacity loss; Ac impedance spectroscopy (Yoon, S. (94) 68)

**Lithium secondary batteries**  
 Negative electrode; Carbon; Graphite; Coke; Mixture of graphite and coke (Kida, Y. (94) 74)

**Lithium secondary batteries**  
 Sol–gel method; Lithium manganese oxide; Oxysulfide spinel; Jahn–Teller distortion (Sun, Y.-K. (94) 132)

**Lithium-7 NMR**  
 Lithiated graphite; Partially oxidized graphite (Wang, Y. (94) 230)

**Lithium-ion batteries**  
 Anode materials; CoFe<sub>3</sub>Sb<sub>12</sub>; Electrochemical behavior (Zhang, L.J. (94) 92)

**Lithium-ion batteries**  
 Anode; Lithium alloys; Bismuth; Tin (Crosnier, O. (94) 169)

**Lithium-ion batteries**  
 Energy storage devices; Low temperature electrolytes (Plichta, E.J. (94) 160)

**Lithium-ion batteries**  
 Phosphorus; Carbon; Anode (Xiang, H.-Q. (94) 85)

**Lithium-ion batteries**  
 Zn<sub>4</sub>Sb<sub>3</sub>; Anode materials (Cao, G.S. (94) 102)

Lithium-ion battery  
Silicon; Graphite; Si–O network; Sol–gel; Negative electrode (Ng, S.B. (94) 63)

Lithium-ion battery  
Thermal conductivity; Thermal diffusivity; Specific heat capacity; Graphite (Maleki, H. (94) 26)

Lithium/polymer-electrolyte/lithium cells  
Concentration measurement; Cycling (Brissot, C. (94) 212)

Low temperature electrolytes  
Lithium-ion batteries; Energy storage devices (Plichta, E.J. (94) 160)

Manganese dioxide  
Al containing oxide; Voltammetry; Structural characteristics; Power sources (Bodoardo, S. (94) 194)

Manganese mixed oxides  
Cation deficient spinels; Rechargeable lithium batteries (Lavela, P. (94) 122)

MCFC  
MIMO; Dynamic model; Transfer function; Step response (Kang, B.S. (94) 51)

MCFC  
Molten carbonate fuel cell; System study; Benchmark; System assessment; Balance of plant (Kivilahti, T. (94) 112)

MIMO  
MCFC; Dynamic model; Transfer function; Step response (Kang, B.S. (94) 51)

Mixture of graphite and coke  
Lithium secondary batteries; Negative electrode; Carbon; Graphite; Coke (Kida, Y. (94) 74)

Molten carbonate fuel cell  
Ethanol steam reforming; Alternative fuels (Freni, S. (94) 14)

Molten carbonate fuel cell  
MCFC; System study; Benchmark; System assessment; Balance of plant (Kivilahti, T. (94) 112)

Multi-layered polymer electrolyte  
Interfacial stability; Lithium ion battery (Aldissi, M. (94) 219)

Nafion  
AC impedance method; PEMFC; Pt/C electrode; PTFE (Song, J.M. (94) 78)

Negative electrode  
Lithium secondary batteries; Carbon; Graphite; Coke; Mixture of graphite and coke (Kida, Y. (94) 74)

Negative electrode  
Silicon; Graphite; Lithium-ion battery; Si–O network; Sol–gel (Ng, S.B. (94) 63)

Nickel–cadmium battery  
Cadmium electrode; Cyclic voltammetry; X-ray diffraction; Second discharge plateau (Simic, N. (94) 1)

Numerical simulation  
Two-phase transport; PEM fuel cells; Analytical modeling; Water management (Wang, Z.H. (94) 40)

Oxysulfide spinel  
Lithium secondary batteries; Sol–gel method; Lithium manganese oxide; Jahn–Teller distortion (Sun, Y.-K. (94) 132)

Partially oxidized graphite  
Lithiated graphite; Lithium-7 NMR (Wang, Y. (94) 230)

Passivating layer  
Lithium polymer battery; Solid electrolyte interface (SEI); Raman; FTIR (Ostrovskii, D. (94) 183)

PEM fuel cells  
Two-phase transport; Analytical modeling; Numerical simulation; Water management (Wang, Z.H. (94) 40)

PEMFC  
AC impedance method; Pt/C electrode; PTFE; Nafion (Song, J.M. (94) 78)

Phosphorus  
Carbon; Anode; Lithium-ion batteries (Xiang, H.-Q. (94) 85)

Plasticiser  
Epoxidised natural rubber; Poly(methyl methacrylate)-grafted natural rubber; Polymer electrolytes (Idris, R. (94) 206)

Platinum electrode  
Solid oxide fuel cell; Hydrogen sulfide; YSZ (Liu, M. (94) 20)

Poly(ethylene oxide)  
Polymer electrolyte; Composite electrolyte; Lithium battery; Electrode and electrolyte interface (Li, Q. (94) 201)

Poly(methyl methacrylate)-grafted natural rubber  
Epoxidised natural rubber; Plasticiser; Polymer electrolytes (Idris, R. (94) 206)

Polyaniline  
Lithium battery; Conducting polymers; Trichloroacetic acid; Propylene carbonate (Venancio, E.C. (94) 36)

Polybenzimidazole  
Solid electrolyte; Conductive membrane; Proton conduction; Silicotungstic acid (Staiti, P. (94) 9)

Polymer electrolyte  
Ionomer; Ion aggregate; Ionic conductivity; Interfacial resistance (Kim, C.-H. (94) 163)

Polymer electrolyte  
Poly(ethylene oxide); Composite electrolyte; Lithium battery; Electrode and electrolyte interface (Li, Q. (94) 201)

Polymer electrolytes  
Epoxidised natural rubber; Plasticiser; Poly(methyl methacrylate)-grafted natural rubber (Idris, R. (94) 206)

Power sources  
Manganese dioxide; Al containing oxide; Voltammetry; Structural characteristics (Bodoardo, S. (94) 194)

Propylene carbonate  
Lithium battery; Conducting polymers; Polyaniline; Trichloroacetic acid (Venancio, E.C. (94) 36)

Proton conduction  
Solid electrolyte; Conductive membrane; Silicotungstic acid; Polybenzimidazole (Staiti, P. (94) 9)

Pt/C electrode  
AC impedance method; PEMFC; PTFE; Nafion (Song, J.M. (94) 78)

PTFE  
AC impedance method; PEMFC; Pt/C electrode; Nafion (Song, J.M. (94) 78)

Pulsed laser deposition  
LiCoO<sub>2</sub>; c-Axis orientation; Electrochemical properties; Thin films (Iriyama, Y. (94) 175)

Raman  
Lithium polymer battery; Passivating layer; Solid electrolyte interface (SEI); FTIR (Ostrovskii, D. (94) 183)

Rechargeable alkaline manganese dioxide batteries  
Zinc anode; Triethanolamine (Sharma, Y. (94) 129)

Rechargeable lithium batteries  
Manganese mixed oxides; Cation deficient spinels (Lavela, P. (94) 122)

Second discharge plateau  
Nickel–cadmium battery; Cadmium electrode; Cyclic voltammetry; X-ray diffraction (Simic, N. (94) 1)

Si–O network  
Silicon; Graphite; Lithium-ion battery; Sol–gel; Negative electrode (Ng, S.B. (94) 63)

Silicon  
Graphite; Lithium-ion battery; Si–O network; Sol–gel; Negative electrode (Ng, S.B. (94) 63)

Silicotungstic acid  
Solid electrolyte; Conductive membrane; Proton conduction; Polybenzimidazole (Staiti, P. (94) 9)

**Sn/SnSb**  
Electrolyte; Surfactant additive; Film formation; Solid electrolyte interphase; Electrochemical impedance (Wachtler, M. (94) 189)

**Sol-gel method**  
Lithium secondary batteries; Lithium manganese oxide; Oxsulfide spinel; Jahn-Teller distortion (Sun, Y.-K. (94) 132)

**Sol-gel**  
Silicon; Graphite; Lithium-ion battery; Si-O network; Negative electrode (Ng, S.B. (94) 63)

**Solid electrolyte interface (SEI)**  
Lithium polymer battery; Passivating layer; Raman; FTIR (Ostrovskii, D. (94) 183)

**Solid electrolyte interphase**  
Sn/SnSb; Electrolyte; Surfactant additive; Film formation; Electrochemical impedance (Wachtler, M. (94) 189)

**Solid electrolyte**  
Conductive membrane; Proton conduction; Silicotungstic acid; Polybenzimidazole (Staiti, P. (94) 9)

**Solid oxide fuel cell**  
Hydrogen sulfide; Platinum electrode; YSZ (Liu, M. (94) 20)

**Solvent mixtures**  
Graphite lattice; Dual intercalation; Graphite exfoliation (Suryanarayanan, V. (94) 137)

**Specific heat capacity**  
Lithium-ion battery; Thermal conductivity; Thermal diffusivity; Graphite (Maleki, H. (94) 26)

**Spinel mixed oxides**  
X-ray diffraction; Li-ions intercalation; Li-ion cell (Arrabito, M. (94) 225)

**Step response**  
MCFC; MIMO; Dynamic model; Transfer function (Kang, B.S. (94) 51)

**Structural characteristics**  
Manganese dioxide; Al containing oxide; Voltammetry; Power sources (Bodoardo, S. (94) 194)

**Surfactant additive**  
Sn/SnSb; Electrolyte; Film formation; Solid electrolyte interphase; Electrochemical impedance (Wachtler, M. (94) 189)

**System assessment**  
Molten carbonate fuel cell; MCFC; System study; Benchmark; Balance of plant (Kivisaari, T. (94) 112)

**System study**  
Molten carbonate fuel cell; MCFC; Benchmark; System assessment; Balance of plant (Kivisaari, T. (94) 112)

**Thermal conductivity**  
Lithium-ion battery; Thermal diffusivity; Specific heat capacity; Graphite (Maleki, H. (94) 26)

**Thermal diffusivity**  
Lithium-ion battery; Thermal conductivity; Specific heat capacity; Graphite (Maleki, H. (94) 26)

**Thin films**  
LiCoO<sub>2</sub>; c-Axis orientation; Electrochemical properties; Pulsed laser deposition (Iriyama, Y. (94) 175)

**Tin**  
Lithium-ion batteries; Anode; Lithium alloys; Bismuth (Crosnier, O. (94) 169)

**Transfer function**  
MCFC; MIMO; Dynamic model; Step response (Kang, B.S. (94) 51)

**Trichloroacetic acid**  
Lithium battery; Conducting polymers; Polyaniline; Propylene carbonate (Venancio, E.C. (94) 36)

**Triethanolamine**  
Rechargeable alkaline manganese dioxide batteries; Zinc anode (Sharma, Y. (94) 129)

**Two-phase transport**  
PEM fuel cells; Analytical modeling; Numerical simulation; Water management (Wang, Z.H. (94) 40)

**Voltammetry**  
Manganese dioxide; Al containing oxide; Structural characteristics; Power sources (Bodoardo, S. (94) 194)

**Water management**  
Two-phase transport; PEM fuel cells; Analytical modeling; Numerical simulation (Wang, Z.H. (94) 40)

**X-ray diffraction**  
Li-ions intercalation; Spinel mixed oxides; Li-ion cell (Arrabito, M. (94) 225)

**X-ray diffraction**  
Nickel-cadmium battery; Cadmium electrode; Cyclic voltammetry; Second discharge plateau (Simic, N. (94) 1)

**YSZ**  
Solid oxide fuel cell; Hydrogen sulfide; Platinum electrode (Liu, M. (94) 20)

**Zinc anode**  
Rechargeable alkaline manganese dioxide batteries; Triethanolamine (Sharma, Y. (94) 129)

**Zn<sub>4</sub>Sb<sub>3</sub>**  
Lithium-ion batteries; Anode materials (Cao, G.S. (94) 102)